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APPENDIX: EXAMPLES OF CURRENT ACTIVITIES RELATED TO OPTIONS IN REVISED CCS POLICY MATRIX, PREPARED AS INPUT TO TELECONFERENCE MEETING #2 RESIDENTIAL, COMMERCIAL & INDUSTRIAL TECHNICAL WORKING GROUP (RCI TWG) ARIZONA CLIMATE CHANGE ADVISORY GROUP SEPTEMBER 15, 2005

<u>Note</u>: The following companion to the revised matrix of policy options for reducing greenhouse gas emissions in the Residential, Commercial, and Industrial sectors provides notes on examples of current Activities related to each of the options. This list is not meant to be exhaustive. Instead it was developed from conversations with various Arizona experts and officials, combined with a review of three key sources:

A1/ADEQ Haze SIP report – *Regional Haze State Implementation Plan for the State of Arizona*, Air Quality Division Arizona Department of Environmental Quality, December 23, 2003 http://www.azdeq.gov/environ/air/haze/download/2sip.pdf

A2/SWEEP website – Southwest Energy Efficiency Project website, information downloaded March 22, 2005.

http://www.swenergy.org/programs/arizona/index.html

A3/DSIRE website - Database of State Incentives for Renewable Energy (2005 Status), information downloaded March 22, 2005. http://www.dsireusa.org/library/includes/map.cfm?State=AZ&CurrentPageId=1.

To keep the tables relatively succinct, we appended expanded descriptions of the sample current activities from each of these sources in the appendix from the August 31 TWG call and refer to the examples by a program/activity and the page number in the relevant appendix to consult for further details. That appendix can be found at http://www.azclimatechange.us/ewebeditpro/items/O40F6748.pdf.

		Examples of Current Activities
1.	Energy Efficiency Programs, Fund	s, and Goals
1.1 (old 1.1)	Utility Demand Side Management (DSM) Programs for electricity, natural gas, propane, fuel oil	The Arizona Corporation Commission (ACC) issued a recommended order in a recent Arizona Public Service Co. rate case, supporting a funding level of \$16 million per year for APS demand-side management (DSM) programs, an increase from \$1 million per year currently. Tucson Electric Power was approved to spend \$1 million of System Benefits Charge funding for low income and energy efficiency programs [A1-4]
1.2 (old 1.2)	Energy Efficiency Funds (e.g. Public Benefit Funds) administered by State agency, utility, or 3rd party (e.g. Energy Trust)	
1.3 (old 1.2)	Energy Efficiency Requirements (e.g. Utility Savings Goals or Energy Portfolio Standards)	
1.4 (old 1.4)	Market transformation and technology development programs	 The Arizona Coalition for New Energy Technologies [A2-4]. Arizona Solar Energy Association and Arizona Solar Energy Industries Association Industries of the Future [A1-11]

		Examples of Current Activities
2.	Appliance standards	
2.1 (old 1.3)	Expansion of State-level Appliance Efficiency Standards	Arizona recently approved HB2390[ii] - energy efficiency standards for 12 residential and commercial products
2.2 (old 1.3)	Support for Federal-level Appliance Efficiency Standards	
3	Buildings	
3.1 (old 2.2.3)	Improved Building Codes	 ASHRAE Standard 90.1-1999 for new state buildings [A2-5] Pima county and city of Tucson have adopted 2000 International Energy Conservation Code[v] Phoenix has adopted 2003 IECC State has established Energy Code Advisory Commission [A1
3.2 (old 3.2.1)	Promotion and Incentives for Improved Design and Construction (e.g. LEED, green buildings)	 See Executive Order 2005-05 above See Tucson-Pima Sustainable Energy Program [A3-15] City of Scottsdale Green Building program [A2-5]
3.3 (old 2.2.2)	Contractor and Builder Education (e.g.: Proper sizing of HVAC, duct sealing)	APS and state Energy Office offer building science training [A1-9] APS subsidizes contractor training [A1-5]
3.4 (old 3.2.4)	Training and Enforcement of Building Codes	Energy office provides training [A1-9]
3.5 (old 3.2.7)	Building Commissioning and Recommissioning, including energy tracking and benchmarking	
3.6 (old 3.2.8)	Energy Management Training / Training of Building Operators	Technical assistance from Rebuild Arizona [A2-3] Arizona Energy Office [A1-9]
3.7 (old 3.2.5)	Increased use of blended cement (substituting fly ash or other pozzolans for clinker reduces CO ₂ emissions)	
3.8	Reduction of emissions from diesel engines used in new construction developments	Need information on how these reductions would be achieved.

		Examples of Current Activities
4	Education and Outreach	
4.1 (old 2.1.1)	Consumer education programs	SRP M-Power [A1-4] APS on-line information, SRP ESS campaign, TEP on-line information and school program [A1-8]
4.2 (old 2.3.3)	Introduce in School Curriculum	· Tucson Solar Schools [A1-2]
5	Pricing and Purchasing	
5.1 (old 1.7)	Green Power Purchasing	 APS, SRP, TEP and UES all provide the option for their customers to purchase green power City of Scottsdale and APS Solar Partners Program [A3-10]
5.2 (old 4.1.2)	Bulk Purchasing Programs for Energy Efficiency or other Equipment (Public or Private sector)	
5.3 (old 1.10)	Net-metering policies	
5.4 (old 1.11)	Time of Use Rates	APS Commercial Peak Reduction Campaign [A1-6]

		Examples of Current Activities
6	Technology Specific Policies	
6.1 (old 1.8)	Incentives for Renewable Energy Applications (Solar roofs, water heaters, etc.)	 SRP Solarwise [A3-5] TEP and UES Sunshare PV buydown [A3-8] Solar and Wind Equipment Sales Tax Exemption [A3-3] Solar and Wind Energy Systems Tax Credit [A3-2]
6.2 (old 1.9)	Clean Combined Heat and Power	
6.3 (old 3.1.1)	Promotion and Tax or Other Incentives (e.g EnergyStar, credits for solar hot water)	 See residential sector HB 2381 solar energy feature evaluations for schools and state buildings.
6.4 (old 2.1.4)	Appliance Recycling/Pick-Up Programs	Retirement programs typically yield short-lived savings.
6.5 (old 2.2.5)	White Roofs, Rooftop Gardens, and Landscaping (including Shade Tree Programs)	· TEP Trees for Tucson program [A2-2]
6.6 (old 2.1.2)	Focus on specific end-uses/technologies: window AC units, lighting, water heating, plug loads, networked PC management, power supplies, motors, pumps, boilers, etc). Consumer products programs, may include incentives, retailer training, marketing and promotion, education, etc	· SRP's Lighting Solutions program [A2-2]

		Examples of Current Activities
7	Non Energy Emissions (UECs. DEC	·
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7.1 (old	Participation in Voluntary Industry-	Federal voluntary programs for electric power (SF6) and semiconductor (PFC) industries
4.3.1)	Government Partnerships	
7.2 (old	Process Changes/ Optimization	
4.3.1)		
7.3 (old	Leak Reduction /Capture, Recovery and	
4.3.3)	Recycling of Process Gases	
7.4 (old	Use of Alternative Gases (other HFCs,	
4.3.4)	hydrocarbon coolants, etc.)	
7.5 (old	Cement Industry: use of alternative fuels	
4.2.4)		
8	GHG Emissions-Specific Goals and	d Policies
8.1 (old	Support for switching to less carbon-	· Qualifying Wood Stove Deduction [A3-1]
2.3.1)	intensive fuels (coal and oil to natural gas or	
	biomass)	
8.2 (old	Industry-Specific Emissions Cap and Trade	
4.2.1)	Programs	
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8.3	Voluntary emissions targets	DOE registry, possibly through AZ performance track
8.4 (old	Negotiated Emissions or Energy Savings	
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9	Other	
9.1 (old 1.5)	Government Agency Requirements and Goals (including procurement)	 Executive Order 2005-05 implementing renewable energy and energy efficiency in new state buildings Solar Design Standards for State Buildings [A3-12]
9.2 (old	Focus on specific market segments:	The State Energy Office's weatherization program for low-income homeowners [A1-1], [A2-3]
2.2.1)	existing homes (weatherization), new	
,	construction, apartments, low income, etc.	
9.3 (old	Reinvestment Fund	Phoenix Reinvestment Fund [A2-4]
3.3.3)		
9.4 (old	Municipal Energy Management	· The Energy Office's Municipal Energy Management Program [A2-3]
3.3.4)		· Governor's awards for Energy Efficiency [A1-9]
9.5 (old	Focus on Small and Medium Enterprises	· ASU Industrial Assessment Center [A1-11]
4.1.5)	(SMEs)	· SRP's Energy Advisor program [A2-2].
9.6 (old	Industrial ecology/ by-product synergy	
4.2.3)	-	
	(Additional option, if/as suggested)	